

REMARKS

This Amendment is submitted in response to the Office Action dated September 8, 2006. In the Office Action, the Patent Office rejected Claims 1-40 under 35 U.S.C. §112, first paragraph, for failing to comply with the written description requirement. Additionally, the Patent Office rejected Claims 1-40 under 35 U.S.C. §112, first paragraph, for failing to comply with the enablement requirement. Further, the Patent Office objected to the disclosure for informalities. Moreover, the Patent Office rejected Claims 1-40 under 35 U.S.C. §102(b) as being anticipated by *Kinzenbaw et al.* (U.S. Patent No. 5,346,019).

By the present Amendment, Applicant amended the specification and Claims 1-10, 13-34 and 38-40. Applicant asserts that the amendments to the specification and the claims and the remarks that follow overcome the objection and rejections made by the Patent Office and place the application in condition for allowance. Notice to that effect is requested.

With respect to the rejection of Claims 1-40 under 35 U.S.C. §112, first paragraph, for failure to comply with the written description requirement, Applicant respectfully submits that the rejection has been overcome by the amendments to independent Claims 1, 10, 15, 21-24, 26-28 and 38 and for the reasons that follow. In the Office Action, the Patent Office asserts:

The limitations regarding the movement of the first end of the frame in a first direction resulting in movement of the second end of the frame in a second

direction has not been properly described in the specification.

Applicant asserts that the amendments to the claims remove the limitations regarding the movement of the first end of the frame in a first direction resulting in movement of the second end of the frame in a second direction. Accordingly, the objection of Claims 1-40 under 35 U.S.C. §112, first paragraph, for failure to comply with the written description requirement has been overcome and should be withdrawn. Notice to that effect is requested.

With respect to the rejection of Claims 1-40 under 35 U.S.C. §112, first paragraph, for failure to comply with the enablement requirement, Applicant respectfully submits that the rejection has been overcome by the amendments to the specification and independent Claims 1, 10, 15, 21-24, 26-28 and 38 and for the reasons that follow. In the Office Action, the Patent Office asserts:

The limitations regarding the movement of the first end of the frame in a first direction resulting in movement of the second end of the frame in a second direction has not been properly described in the specification. Additionally, Applicant does not have basis in the specification for the claimed axle associated with the frame. It is noted that the specification refers to a wheel axis 28 and a disc axis 38 & 40.

Applicant asserts that the amendments to the claims remove the limitation regarding the movement of the first end of the frame in a first direction resulting in movement of the second end of the frame in a second direction. Further, the amendments to the

specification replaces "wheel axis 28", "first disc axis 38" and "second disc axis 40" with "wheel axle 28", "first disc axle 38" and "second disc axle 40", respectively. Moreover, the amendments to the specification clarify the axle associated with the frame as defined in the claims. Accordingly, the objection of Claims 1-40 under 35 U.S.C. §112, first paragraph, for failure to comply with the enablement requirement has been overcome and should be withdrawn. Notice to that effect is requested.

With respect to the objection to the specification for informalities, Applicant respectfully submits that the rejection has been overcome by the amendments to the specification and for the reasons that follow. In the Office Action, the Patent Office asserts:

Applicant discusses tires 30 connected to a wheel axis, and the use of an oil bath and screw plug with a tire (pages 10-11 and figure 5). However, the Examiner notes that Applicant appears to be referring to a wheel on which a tire is mounted. Similarly, figure 5 appears to show a tire mounted on a wheel, with the wheel having the screw plug. It appears that Applicant should be referring to a wheel instead of a tire. Similarly, it appears that Applicant incorrectly refers to a wheel axis instead of a wheel axle. Appropriate correction is required.

In response to the objection, Applicant amended the specification to overcome the objection to the specification by the Patent Office. Applicant submits that the amendment to the specification overcomes the objection by the Patent Office. Notice to that effect is requested.

With respect to the rejection of Claims 1-40 under 35 U.S.C.

§102(b) as being anticipated by *Kinzenbaw et al.*, Applicant submits that the amendment to independent Claims 1, 10, 15, 21-32 and 38 overcome the rejection of the Patent Office. In the Office Action, the Patent Office alleges that:

Kinzenbaw et al., disclose an apparatus for separating soil including a frame, a plurality of discs, a pillar 118 a column, 100b inside the pillar, liner 180b and plates 182b inside the pillar supporting the column as shown in Figures 3d & 6. The Examiner notes that front cylinder 80 moves to adjust the angle of the frame relative to the soil as viewed from above (see Figure 2 where the frame is pivoted 90 degrees). Additionally, it is noted that the frame 20 has a body defined by a plane as shown in Figure 3d. Furthermore, Figure 1 shows discs positioned on opposite sides of the tires as does Figure 2 in phantom. Concerning Claim 35, the axle is considered member 132 or the wheel axle (see 164, fig. 4)

Independent Claim 1, as amended, requires an apparatus having at least one of the discs adjacent to the first side of the frame which is non-parallel with respect to at least one of the discs adjacent to the second side of the frame. Moreover, Claim 1 requires that the cylinder extends between the axle and the frame to move the frame and the discs with respect to the axle.

Independent Claim 10, as amended, requires that the frame has a first cross member and a second cross member connecting the first bar to the second bar wherein the first cross member has a first length wherein the second cross member has a second length wherein the first length of the first cross member is greater than the second length of the second cross member.

Independent Claim 15, as amended, requires a frame having a front cross bar and a rear cross bar wherein the front cross bar is

non-parallel with respect to the rear cross bar.

Independent Claim 21, as amended, requires a frame having a first axle and a second axle attached to the bottom side of the frame wherein the first axle is non-parallel with respect to the second axle. Moreover, Claim 21 requires a plurality of plates inside the pillar supporting the column wherein the column is located between the plurality of plates inside the pillar.

Independent Claim 22, as amended, requires that the first end of the cylinder is attached to the frame wherein the second end of the cylinder extends outwardly with respect to the top end of the frame. Moreover, Claim 22 requires a hitch having a length defined between an end of the hitch and a connector of the hitch wherein the end of the hitch is attachable to the frame and wherein the connector rotates in a first direction and a second direction wherein the first direction is opposite to the second direction.

Independent Claim 23, as amended, requires that the pillar has plates located inside the pillar adjacent to the first end of the pillar and the second end of the pillar. Moreover, Claim 23 requires a cylinder connected to the frame wherein the cylinder moves the pillar and the frame with respect to the column wherein the pillar moves the plurality of discs with respect to the soil.

Independent Claim 24, as amended, requires a front cylinder connected to the frame wherein the front cylinder and the column move the frame and plurality of discs with respect to the soil.

Independent Claim 25, as amended, requires that the pillar has

a liner and plates connected to and located inside the pillar of the frame wherein the liner is made from plastic. Further, Claim 25 requires a hitch having a length defined between an end of the hitch and a connector of the hitch wherein the end of the hitch is attachable to the frame and wherein the connector rotates in a first direction and a second direction wherein the first direction is opposite to the second direction. Moreover, Claim 25 requires the frame moves along the pillar and pivots at a point between the first end of the frame and the second end of the frame.

Independent Claim 26, as amended, requires that the first plurality of discs is non-parallel with respect to the second plurality of discs.

Independent Claim 27, as amended, requires that the frame has a first beam and a second beam connecting the first end of the frame to the second end of the frame wherein the first beam has a first length and the second beam has a second length which is less than the first length of the first beam.

Independent Claim 28, as amended, requires a front cylinder positioned at the first end of the frame wherein the front cylinder moves the frame from a first position to a second position wherein the front cylinder moves the first end of the frame with respect to the axis wherein the frame moves the plurality of discs with respect to the soil.

Independent Claim 29, as amended, requires that the first end of the front bar is separated from the first end of the rear bar by a first distance wherein the second end of the front bar is

separated from the second end of the rear bar by a second distance wherein the second distance is greater than the first distance. Moreover, Claim 29 requires that the connector rotates in a first direction and in a second direction wherein the first direction is opposite to the second direction.

Independent Claim 30, as amended, requires an axle which serves as a fulcrum wherein the frame pivots with respect to the axle. Moreover, Claim 30 requires a pillar connected to the frame wherein the pillar has a liner located inside the pillar wherein the liner is made of plastic.

Independent Claim 31, as amended, requires an axle connected to the bottom end of the frame wherein the axle serves as a fulcrum wherein the frame pivots with respect to the axle. Further, Claim 31 requires a cylinder attached to the frame and to the axle wherein the cylinder has a length defined between a first end of the cylinder and a second end of the cylinder wherein a first end of the cylinder is connected to the top side of the frame and the second end of the cylinder is connected to the axle. Moreover, Claim 31 requires that the connector rotates in a first direction and a second direction wherein the first direction is opposite to the second direction.

Independent Claim 32, as amended, requires a second axle connected to the frame wherein the second axle serves as a fulcrum wherein the frame pivots with respect to the second axle. Moreover, Claim 32 requires discs attached to the frame wherein the discs are aligned on and attached to the first axle between the

frame and the soil.

Independent Claim 38, as amended, requires a cylinder connected to the frame wherein the cylinder has a length defined between a first end of the cylinder and a second end of the cylinder wherein the first end of the cylinder is connected to the top side of the frame wherein the second end of the cylinder is connected to the axle. Moreover, Claim 38 requires that the frame pivots with respect to the axle via the second end of the cylinder wherein movement of the second end of the cylinder moves the frame with respect to the axle.

Kinzenbaw et al. merely disclose a row crop planter 10 having a plurality of rear, pulled-type row units 28 secured to a main carrier frame 12. *Kinzenbaw et al.* merely disclose that the main carrier frame 12 is secured to a lift frame 20 which may be lifted.

Nowhere does *Kinzenbaw et al.* disclose that at least one of the discs adjacent to the first side of the frame is non-parallel with respect to at least one of the discs adjacent to the second side of the frame as required by Claim 1. Moreover, nowhere does *Kinzenbaw et al.* disclose that the cylinder extends between the axle and the frame to move the frame and the discs with respect to the axle as required by Claim 1.

Nowhere does *Kinzenbaw et al.* disclose the frame which has a first cross member and a second cross member connecting the first bar to the second bar wherein the first cross member has a first length wherein the second cross member has a second length wherein the first length of the first cross member is greater than the

second length of the second cross member as required by Claim 10.

Nowhere does *Kinzenbaw et al.* disclose a frame having a front cross bar and a rear cross bar wherein the front cross bar is non-parallel with respect to the rear cross bar as required by Claim 15.

Nowhere does *Kinzenbaw et al.* disclose a frame having a first axle and a second axle attached to the bottom side of the frame wherein the first axle is non-parallel with respect to the second axle as required by Claim 21. Nowhere does *Kinzenbaw et al.* disclose a plurality of plates inside the pillar supporting the column wherein the column is located between the plurality of plates inside the pillar as required by Claim 21.

Nowhere does *Kinzenbaw et al.* disclose that the first end of the cylinder is attached to the frame wherein the second end of the cylinder extends outwardly with respect to the top end of the frame as required by Claim 22. Further, nowhere does *Kinzenbaw et al.* disclose a hitch having a length defined between an end of the hitch and a connector of the hitch wherein the end of the hitch is attachable to the frame and wherein the connector rotates in a first direction and a second direction wherein the first direction is opposite to the second direction as required by Claim 22.

Nowhere does *Kinzenbaw et al.* disclose that the pillar has plates located inside the pillar adjacent to the first end of the pillar and the second end of the pillar as required by Claim 23. Further, nowhere does *Kinzenbaw et al.* disclose a cylinder

connected to the frame wherein the cylinder moves the pillar and the frame with respect to the column wherein the pillar moves the plurality of discs with respect to the soil as required by Claim 23.

Nowhere does *Kinzenbaw et al.* disclose a front cylinder connected to the frame wherein the front cylinder and the column move the frame and plurality of discs with respect to the soil as required by Claim 24.

Nowhere does *Kinzenbaw et al.* disclose that the pillar has a liner and plates connected to and located inside the pillar of the frame wherein the liner is made from plastic as required by Claim 25. Further, nowhere does *Kinzenbaw et al.* disclose a hitch having a length defined between an end of the hitch and a connector of the hitch wherein the end of the hitch is attachable to the frame and wherein the connector rotates in a first direction and a second direction wherein the first direction is opposite to the second direction as required by Claim 25. Moreover, nowhere does *Kinzenbaw et al.* disclose the frame moves along the pillar and pivots at a point between the first end of the frame and the second end of the frame as required by Claim 25.

Nowhere does *Kinzenbaw et al.* disclose that the first plurality of discs is non-parallel with respect to the second plurality of discs as required by Claim 26.

Nowhere does *Kinzenbaw et al.* disclose that the frame has a first beam and a second beam connecting the first end of the frame to the second end of the frame wherein the first beam has a first

length and the second beam has a second length which is less than the first length of the first beam as required by Claim 27.

Nowhere does *Kinzenbaw et al.* disclose a front cylinder positioned at the first end of the frame wherein the front cylinder moves the frame from a first position to a second position wherein the front cylinder moves the first end of the frame with respect to the axis wherein the frame moves the plurality of discs with respect to the soil as required by Claim 28.

Nowhere does *Kinzenbaw et al.* disclose that the first end of the front bar is separated from the first end of the rear bar by a first distance wherein the second end of the front bar is separated from the second end of the rear bar by a second distance wherein the second distance is greater than the first distance as required by Claim 29. Nowhere does *Kinzenbaw et al.* disclose that the connector rotates in a first direction and in a second direction wherein the first direction is opposite to the second direction as required by Claim 29.

Nowhere does *Kinzenbaw et al.* disclose an axle which serves as a fulcrum wherein the frame pivots with respect to the axle as required by Claim 30. Moreover, nowhere does *Kinzenbaw et al.* disclose a pillar connected to the frame wherein the pillar has a liner located inside the pillar wherein the liner is made of plastic as required by Claim 30.

Nowhere does *Kinzenbaw et al.* disclose an axle connected to the bottom end of the frame wherein the axle serves as a fulcrum wherein the frame pivots with respect to the axle as required by

Claim 31. Further, nowhere does *Kinzenbaw et al.* disclose a cylinder attached to the frame and to the axle wherein the cylinder has a length defined between a first end of the cylinder and a second end of the cylinder wherein a first end of the cylinder is connected to the top side of the frame and the second end of the cylinder is connected to the axle as required by Claim 31. Moreover, nowhere does *Kinzenbaw et al.* disclose that the connector rotates in a first direction and a second direction wherein the first direction is opposite to the second direction as required by Claim 31.

Nowhere does *Kinzenbaw et al.* disclose a second axle connected to the frame wherein the second axle serves as a fulcrum wherein the frame pivots with respect to the second axle as required by Claim 32. Moreover, nowhere does *Kinzenbaw et al.* disclose discs attached to the frame wherein the discs are aligned on and attached to the first axle between the frame and the soil as required by Claim 32.

Nowhere does *Kinzenbaw et al.* disclose a cylinder connected to the frame wherein the cylinder has a length defined between a first end of the cylinder and a second end of the cylinder wherein the first end of the cylinder is connected to the top side of the frame wherein the second end of the cylinder is connected to the axle as required by Claim 38. Moreover, nowhere does *Kinzenbaw et al.* disclose that the frame pivots with respect to the axle via the second end of the cylinder wherein movement of the second end of the cylinder moves the frame with respect to the axle as required

by Claim 38.

Under 35 U.S.C. §102(b), anticipation requires that a single reference discloses each and every element of Applicant's claimed invention. *Akzo N.V. v. U.S. International Trade Commission*, 808 F.2d 1471, 1479, 1 USPQ 2d 1241, 1245 (Fed. Cir. 1986). Moreover, anticipation is not shown even if the differences between the claims and the reference are "insubstantial" and one skilled in the art could supply the missing elements. *Structure Rubber Products Co. v. Park Rubber Co.*, 749 F.2d. 707, 716, 223 USPQ 1264, 1270 (Fed. Cir. 1984).


Since *Kinzenbaw et al.* fail to disclose each and every element of independent Claim 1, 10, 15, 21-32 and 38, the rejection of Claims 1-40 under 35 U.S.C. §102(b) is improper and should be withdrawn. Notice to that effect is requested.

Claims 2-9 depend from independent Claim 1; Claims 11-14 depend from independent Claim 10; Claims 16-20 depend from independent Claim 15; Claims 33 and 34 depend from independent Claim 32; and Claims 39 and 40 depend from independent Claim 38. These claims are further believed allowable over *Kinzenbaw et al.* for the same reasons set forth with respect to the independent claims since each sets forth additional structural elements of Applicant's invention.

In view of the foregoing remarks and arguments, Applicant respectfully submits that all of the claims in the application are in allowable form and that the application is in condition for allowance. If, however, any outstanding issues remain, Applicant

urges the Patent Office to telephone Applicant's attorney so that the same may be resolved and the application expedited to issue. Applicant requests the Patent Office to indicate all claims as allowable and to pass the application to issue.

Respectfully submitted,

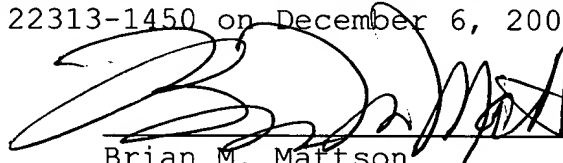


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CERTIFICATE OF MAILING

I hereby certify that this **Amendment**, Transmittal (in duplicate) and return receipt postcard are being deposited with the United States Postal Service as First Class Mail in an envelope addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on December 6, 2006.



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